of Water Code section 13176, and must include quality assurance/quality control data with their reports.

R. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street, Sacramento, CA 95814

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

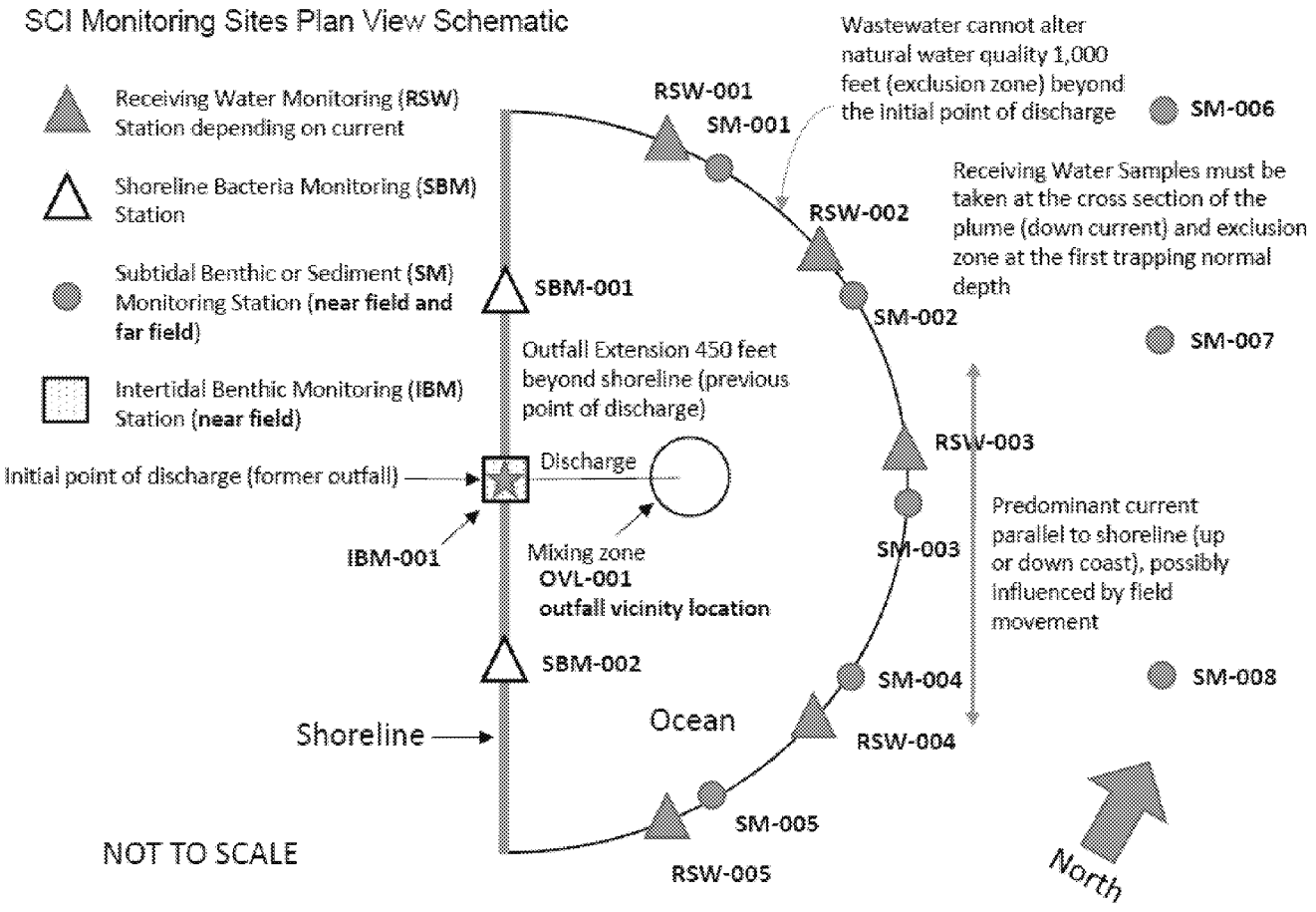
Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Influent Monitoring Station		
--	**INF-001**	The influent monitoring location shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and/or representative samples of the influent can be obtained. Influent samples shall be obtained on the same day effluent samples are obtained. Latitude: 33.004608° Longitude: -118.550801°
Effluent Monitoring Station		
002	**EFF-001**	The effluent monitoring location shall be located downstream of any in-plant return flows and effluent streams from both the tertiary and secondary treatment systems, where representative samples of the effluent can be obtained. Latitude: 33.0054600° Longitude: -118.550830°
Shoreline Bacteria Monitoring Stations		
--	**SBM-001** **SBM-002**	As part of the Ocean Plan core monitoring, monthly bacteria monitoring shall occur at the shoreline nearest the outfall. Samples may be collected along the shoreline at a point as near to the shoreline as can be negotiated safely by boat. The report shall contain the actual coordinates of the sample location. SBM-001: Latitude: 33.005219° Longitude: -118.553225° SBM-002: Latitude: 33.003386° Longitude: -118.550797°

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Offshore Receiving Water Monitoring Stations		
--	**RSW-001** **RSW-002** **RSW-003** **RSW-004** **RSW-005**	The report shall contain actual depths and coordinates of the up-current and down-current sample location. RSW-001: Latitude: 33.006006° Longitude: -118.553156° RSW-002: Latitude: 33.006833° Longitude: -118.551000° RSW-003: Latitude: 33.005989° Longitude: -118.549544° RSW-004: Latitude: 33.004489° Longitude: -118.548747° RSW-005: Latitude: 33.003142° Longitude: -118.549003°
Sediment Monitoring (Subtidal Benthic) Stations		
--	**SM-001 near-field** **SM-002 near-field** **SM-003 near-field** **SM-004 near-field** **SM-005 near-field** **SM-006 far-field** **SM-007 far-field** **SM-008 far-field**	The Discharger shall perform a benthic biota survey (intertidal and subtidal) once per permit cycle at multiple near and far field stations. The survey shall be conducted at each SM-00X station and at IBM-001 (see below). This activity also satisfies ASBS compliance for determining the status of marine aquatic life. The report shall include the actual coordinates of the location sampled. SM-001: Latitude: 33.008940° Longitude: -118.552670° SM-002: Latitude: 33.007380° Longitude: -118.550190° SM-003: Latitude: 33.006110° Longitude: -118.546550° SM-004: Latitude: 33.004970° Longitude: -118.545970° SM-005: Latitude: 33.003460° Longitude: -118.545750° SM-006: Latitude: 33.002930° Longitude: -118.545750° SM-007: Latitude: 33.002140° Longitude: -118.545560° SM-008: Latitude: 33.000650° Longitude: -118.544690°
Intertidal Benthic Monitoring		
--	**IBM-001 near field**	The intertidal benthic monitoring location is located at the terminus of Discharge Point 001 (no longer in service). The Discharger shall perform a benthic biota survey (intertidal and subtidal) once per permit cycle at multiple near and far-field stations. The survey shall be conducted at each SM-00X station and at IBM-001 (see below). This activity also satisfies ASBS compliance for determining the status of marine aquatic life. The report shall include the actual coordinates of the location sampled. Latitude: 33.004000° Longitude: -118.552000°
Outfall Vicinity Location		
--	**OVL-001**	Located near the discharge point at a similar depth but outside the influence of the discharge plume. Temperature and salinity shall be monitored if needed to conduct an updated dilution study. The report shall include the actual depth versus outfall depth and the coordinates of the location sampled. Latitude: 33.000000° Longitude: -118.564444°

The coordinates in Table E-1 are approximate for administrative purposes.

Figure E- 1. Inshore Water Quality Station Locations



III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to determine compliance with NPDES permit conditions and to assess treatment plant performance.

A. The Discharger shall monitor influent to the facility at INF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger shall select from the listed methods and corresponding minimum level.

Table E-2. Influent Monitoring

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency[2]	Required Analytical Test Method
Flow	mgd	Recorder/totalizer	Continuous[3]	[4]
Biochemical Oxygen Demand (BOD_5 20°C)	mg/L	24-hr composite	Monthly	[4]
Total Suspended Solids (TSS)	mg/L	24-hr composite	Monthly	[4]
pH	pH units	Grab	Monthly	[4]
Oil and Grease	mg/L	Grab[5]	Monthly	[4]
Arsenic	µg/L	24-hr composite	Semiannually	[4]
Cadmium	µg/L	24-hr composite	Semiannually	[4]
Chromium VI[6]	µg/L	Grab	Semiannually	[4]
Copper	µg/L	24-hr composite	Semiannually	[4]
Lead	µg/L	24-hr composite	Semiannually	[4]
Mercury[7]	µg/L	24-hr composite	Semiannually	[4]
Nickel	µg/L	24-hr composite	Semiannually	[4]
Selenium	µg/L	24-hr composite	Semiannually	[4]

1 For 24-hour composite samples, if the duration of the discharge is less than 24 hours but greater than 8 hours, at least eight flow-weighted samples shall be obtained during the discharge period and composited. For discharge durations of less than eight hours, individual grab samples may be substituted. A grab sample is an individual sample collected in less than 15 minutes.

2 Weekly and monthly sampling shall be arranged so that each day of the week is represented over a seven week or month period, except Saturday and Sunday. The schedule should be repeated every seven weeks or months.

3 When continuous monitoring of flow is required, total daily flow, monthly average flow, and instantaneous peak daily flow (24-hour basis) shall be reported. Actual monitored flow shall be reported (not design capacity).

4 Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

5 Oil and grease monitoring shall consist of a single grab sample at peak flow over a 24-hour period.

6 The Discharger may, at its option, meet the hexavalent chromium limitation by analyzing for total chromium rather than hexavalent chromium.

7 USEPA Method 1631E, with a quantitation level of 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1631E.

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency[2]	Required Analytical Test Method
Silver	µg/L	24-hr composite	Semiannually	[4]
Zinc	µg/L	24-hr composite	Semiannually	[4]
Cyanide	µg/L	Grab	Semiannually	[4]
Ammonia Nitrogen	mg/L	24-hr composite	Semiannually	[4]
Phenolic Compounds (non-chlorinated)[8]	µg/L	24-hr composite	Semiannually	[4]
Phenolic Compounds (chlorinated)[8]	µg/L	24-hr composite	Semiannually	[4]
Endosulfan[8]	µg/L	24-hr composite	Semiannually	[4]
Endrin	µg/L	24-hr composite	Semiannually	[4]
Hexachlorocyclohexane (HCH)[8]	µg/L	24-hr composite	Semiannually	[4]
Radioactivity (including gross alpha, gross, beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)[9]	pCi/L	24-hr composite	Semiannually	[4]
Acrolein	µg/L	Grab	Semiannually	[4]
Antimony	µg/L	24-hr composite	Semiannually	[4]
Bis(2-chloroethoxy) methane	µg/L	24-hr composite	Semiannually	[4]
Bis(2-chloroisopropyl) ether	µg/L	24-hr composite	Semiannually	[4]
Chlorobenzene	µg/L	Grab	Semiannually	[4]
Chromium (III)	µg/L	Grab	Semiannually	[4]
Di-n-butyl phthalate	µg/L	24-hr composite	Semiannually	[4]
Dichlorobenzenes[8]	µg/L	24-hr composite	Semiannually	[4]
Diethyl phthalate	µg/L	24-hr composite	Semiannually	[4]
Dimethyl phthalate	µg/L	24-hr composite	Semiannually	[4]
4,6-dinitro-2-methylphenol	µg/L	24-hr composite	Semiannually	[4]
2,4-dinitrophenol	µg/L	24-hr composite	Semiannually	[4]
Ethylbenzene	µg/L	Grab	Semiannually	[4]
Fluoranthene	µg/L	24-hr composite	Semiannually	[4]
Hexachlorocyclopentadiene	µg/L	24-hr composite	Semiannually	[4]
Nitrobenzene	µg/L	24-hr composite	Semiannually	[4]
Thallium	µg/L	24-hr composite	Semiannually	[4]
Toluene	µg/L	Grab	Semiannually	[4]
Tributyltin	ng/L	24-hour composite	Semiannually	[4]
1,1,1-Trichloroethane	µg/L	Grab	Semiannually	[4]
Acrylonitrile	µg/L	Grab	Semiannually	[4]

[8] See Attachment A for definition of terms.

[9] Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha and gross beta results for the same sample exceed 15 pCi/L or 50 pCi/L, respectively. If radium-226 & 228 exceeds the stipulated criteria, then analyze for tritium, strontium-90, and uranium.

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency[2]	Required Analytical Test Method
Aldrin	µg/L	24-hr composite	Semiannually	[4]
Benzene	µg/L	Grab	Semiannually	[4]
Benzidine	µg/L	24-hr composite	Semiannually	[4]
Beryllium	µg/L	24-hr composite	Semiannually	[4]
Bis(2-chloroethyl) ether	µg/L	24-hr composite	Semiannually	[4]
Bis(2-ethylhexyl) phthalate	µg/L	24-hr composite	Semiannually	[4]
Carbon tetrachloride	µg/L	Grab	Semiannually	[4]
Chlordane[8]	µg/L	24-hr composite	Semiannually	[4]
Chlorodibromomethane	µg/L	Grab	Semiannually	[4]
Chloroform	µg/L	Grab	Semiannually	[4]
DDT[8]	µg/L	24-hr composite	Semiannually	[4]
1,4-dichlorobenzene	µg/L	24-hr composite	Semiannually	[4]
3,3'-dichlorobenzidine	µg/L	24-hr composite	Semiannually	[4]
1,2-Dichloroethane	µg/L	Grab	Semiannually	[4]
1,1-Dichloroethylene	µg/L	Grab	Semiannually	[4]
Dichlorobromomethane	µg/L	Grab	Semiannually	[4]
Dichloromethane	µg/L	Grab	Semiannually	[4]
1,3-Dichloropropene	µg/L	Grab	Semiannually	[4]
Dieldrin	µg/L	24-hr composite	Semiannually	[4]
2,4-dinitrotoluene	µg/L	24-hr composite	Semiannually	[4]
1,2-diphenylhydrazine	µg/L	24-hr composite	Semiannually	[4]
Halomethanes[8]	µg/L	Grab	Semiannually	[4]
Heptachlor	µg/L	24-hr composite	Semiannually	[4]
Heptachlor epoxide	µg/L	24-hr composite	Semiannually	[4]
Hexachlorobenzene	µg/L	24-hr composite	Semiannually	[4]
Hexachlorobutadiene	µg/L	24-hr composite	Semiannually	[4]
Hexachloroethane	µg/L	24-hr composite	Semiannually	[4]
Isophorone	µg/L	24-hr composite	Semiannually	[4]
N-Nitrosodimethylamine	µg/L	24-hr composite	Semiannually	[4]
N-Nitrosodi-n-propylamine	µg/L	24-hr composite	Semiannually	[4]
N-Nitrosodiphenylamine	µg/L	24-hr composite	Semiannually	[4]
Polycyclic Aromatic Hydrocarbons (PAHs)[8]	µg/L	24-hr composite	Semiannually	[4]
Polychlorinated Biphenyls (PCBs) as Aroclors[8]	µg/L	24-hr composite	Semiannually	[4]
TCDD Equivalents[8,10]	pg/L	24-hr composite	Semiannually	[4]
1,1,2,2-Tetrachloroethane	µg/L	Grab	Semiannually	[4]

[10] USEPA Method 1613 shall be used to analyze TCDD equivalents. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1613.

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency[2]	Required Analytical Test Method
Tetrachloroethylene	µg/L	Grab	Semiannually	[4]
Toxaphene	µg/L	24-hr composite	Semiannually	[4]
Trichloroethylene	µg/L	Grab	Semiannually	[4]
1,1,2-Trichloroethane	µg/L	Grab	Semiannually	[4]
2,4,6-Trichlorophenol	µg/L	24-hr composite	Semiannually	[4]
Vinyl chloride	µg/L	Grab	Semiannually	[4]

IV. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to determine compliance with National Pollutant Discharge Elimination System (NPDES) permit conditions and water quality standards; assess and improve plant performance and identify operational problems; provide information on wastewater characteristics and flows for use in interpreting water quality and biological data; and to conduct reasonable potential analyses for toxic pollutants.

A. Monitoring Location EFF-001

1. The Discharger shall monitor effluent at EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type[11]	Minimum Sampling Frequency[12]	Required Analytical Test Method and (Minimum Level, units), respectively
Flow	mgd	Recorder/ totalizer	Continuous[13]	[14]
BOD_5 20°C	mg/L	24-hour composite	Monthly	[14]
	lbs/day			
TSS	mg/L	24-hour composite	Monthly	[14]
	lbs/day			
pH	pH units	Grab	Monthly	[14]
Oil and Grease	mg/L		Monthly	[14]

[11] For 24-hour composite samples, if the duration of the discharge is less than 24 hours but greater than 8 hours, at least eight flow-weighted samples shall be obtained during the discharge period and composited. For discharge durations of less than eight hours, individual grab samples may be substituted. A grab sample is an individual sample collected in less than 15 minutes.

[12] Weekly and monthly sampling shall be arranged so that each day of the week is represented over a seven week or month period, except Saturday and Sunday. The schedule should be repeated every seven weeks or months.

[13] When continuous monitoring of flow is required, total daily flow, monthly average flow, and instantaneous peak daily flow (24-hour basis) shall be reported. Actual monitored flow shall be reported (not design capacity).

[14] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

Parameter	Units	Sample Type[11]	Minimum Sampling Frequency[12]	Required Analytical Test Method and (Minimum Level, units), respectively
	~~lbs/day~~	Grab[15]		
Temperature	°F	Grab	Monthly	[14]
Settleable Solids	mL/L	Grab[15]	Monthly	[14]
Dissolved Oxygen	mg/L	Grab	Monthly	[14]
Turbidity	NTU	24-hr composite	Monthly	[14]
Total Coliform	CFU/ 100mL or MPN/ 100mL	Grab	Monthly	[14]
Enterococcus	CFU/ 100mL or MPN/ 100mL	Grab	Monthly	[14]
Fecal Coliform	CFU/ 100mL or MPN/ 100mL	Grab	Monthly	[14]
Nitrate Nitrogen	mg/L	24-hour composite	Semiannually	[14]
Nitrite Nitrogen	mg/L	24-hour composite	Semiannually	[14]
Organic Nitrogen	mg/L	24-hour composite	Semiannually	[14]
Total Phosphorus	mg/L	24-hour composite	Semiannually	[14]
Arsenic	µg/L	24-hr composite	~~Quarterly~~Semiannually	[14]
Cadmium	µg/L	24-hr composite	Semiannually	[14]
Chromium (VI)	µg/L	Grab	Semiannually	[14]
Copper[16]	µg/L	24-hr composite and Grab	Monthly	[14]
Lead	µg/L	24-hr composite	~~Quarterly~~Semiannually	[14]

[15] Oil and grease, and settleable solids monitoring shall consist of a single grab sample at peak flow over a 24-hour period.

[16] 24-hour composite samples are used to assess compliance with the maximum daily and average monthly effluent limitations and grab samples are used to assess compliance with the instantaneous maximum effluent limitation.

Parameter	Units	Sample Type[11]	Minimum Sampling Frequency[12]	Required Analytical Test Method and (Minimum Level, units), respectively
Mercury[17]	µg/L	24-hr composite	Quarterly	[14]
Nickel	µg/L	24-hr composite	QuarterlySemiannually	[14]
Selenium	µg/L	24-hr composite	Semiannually	[14]
Silver	µg/L	24-hr composite	Semiannually	[14]
Zinc[16]	µg/L	24-hr composite and Grab	Monthly	[14]
Cyanide	µg/L	Grab	QuarterlySemiannually	[14]
Total Residual Chlorine[16]	mg/L	Grab and 24-hour composite	Monthly	[14]
Ammonia Nitrogen	mg/L	24-hr composite	Quarterly	[14]
Toxicity, Chronic	Pass or Fail, (TST) % Effect	24-hr composite	Quarterly	[14]
Phenolic compounds (non-chlorinated)[18]	µg/L	24-hr composite	Semiannually	[14]
Phenolic compounds (chlorinated)[18]	µg/L	24-hr composite	Semiannually	[14]
Endosulfan[18]	µg/L	24-hr composite	QuarterlySemiannually	[14]
Endrin	µg/L	24-hr composite	Semiannually	[14]
HCH[18]	µg/L	24-hr composite	Quarterly	[14]
Radioactivity (including gross alpha, gross beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)[19]	pCi/L	24-hr composite	Semiannually	[14]

17 USEPA Method 1631E, with a quantitation level of 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1631E.

18 See Attachment A for definition of terms.

19 Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha and gross beta results for the same sample exceed 15 pCi/L or 50 pCi/L,

Parameter	Units	Sample Type[11]	Minimum Sampling Frequency[12]	Required Analytical Test Method and (Minimum Level, units), respectively
Acrolein	µg/L	Grab	Semiannually	[14]
Antimony	µg/L	24-hr composite	Semiannually	[14]
Bis(2-chloroethoxy) methane	µg/L	24-hr composite	Semiannually	[14]
Bis(2-chloroisopropyl) ether	µg/L	24-hr composite	Semiannually	[14]
Chlorobenzene	µg/L	Grab	Semiannually	[14]
Chromium (III)	µg/L	Grab	Semiannually	[14]
Di-n-butyl phthalate	µg/L	24-hr composite	Semiannually	[14]
Dichlorobenzenes[18]	µg/L	24-hr composite	Semiannually	[14]
Diethyl Phthalate	µg/L	24-hr composite	Semiannually	[14]
Dimethyl Phthalate	µg/L	24-hr composite	Semiannually	[14]
4,6-dinitro-2-methylphenol	µg/L	24-hr composite	Semiannually	[14]
2,4-dinitrophenol	µg/L	24-hr composite	Semiannually	[14]
Ethylbenzene	µg/L	Grab	Semiannually	[14]
Fluoranthene	µg/L	24-hr composite	Semiannually	[14]
Hexachlorocyclo-pentadiene	µg/L	24-hr composite	Semiannually	[14]
Nitrobenzene	µg/L	24-hr composite	Semiannually	[14]
Thallium	µg/L	24-hr composite	Semiannually	[14]
Toluene	µg/L	Grab	Semiannually	[14]
Tributyltin	ng/L	24-hr composite	QuarterlySemiannually	[14]
1,1,1-Trichloroethane	µg/L	Grab	Semiannually	[14]
Acrylonitrile	µg/L	Grab	Semiannually	[14]
Aldrin	µg/L	24-hr composite	Semiannually	[14]
Benzene	µg/L	Grab	Semiannually	[14]
Benzidine	µg/L	24-hr composite	Semiannually	[14]
Beryllium	µg/L	24-hr composite	Semiannually	[14]
Bis(2-chloroethyl) ether	µg/L	24-hr composite	Semiannually	[14]

respectively. If radium-226 & 228 exceeds the stipulated criteria, then analyze for tritium, strontium-90, and uranium.

Parameter	Units	Sample Type[11]	Minimum Sampling Frequency[12]	Required Analytical Test Method and (Minimum Level, units), respectively
Bis(2-ethylhexyl) phthalate	µg/L	24-hr composite	~~Quarterly~~Semiannually	[14]
Carbon Tetrachloride	µg/L	Grab	Semiannually	[14]
Chlordane[18]	µg/L	24-hr composite	Semiannually	[14]
Chlorodibromomethane	µg/L	Grab	~~Quarterly~~Semiannually	[14]
Chloroform	µg/L	Grab	~~Quarterly~~Semiannually	[14]
DDT[18]	µg/L	24-hr composite	Semiannually	[14]
1,4-dichlorobenzene	µg/L	24-hr composite	Semiannually	[14]
3,3'-dichlorobenzidine	µg/L	24-hr composite	Semiannually	[14]
1,2-dichloroethane	µg/L	Grab	Semiannually	[14]
1,1-dichloroethylene	µg/L	Grab	Semiannually	[14]
Dichlorobromomethane	µg/L	Grab	~~Quarterly~~Semiannually	[14]
Dichloromethane	µg/L	Grab	Semiannually	[14]
1,3-Dichloropropene	µg/L	Grab	Semiannually	[14]
Dieldrin	µg/L	24-hr composite	Semiannually	[14]
2,4-dinitrotoluene	µg/L	24-hr composite	Semiannually	[14]
1,2-diphenylhydrazine	µg/L	24-hr composite	Semiannually	[14]
Halomethanes[18]	µg/L	Grab	Semiannually	[14]
Heptachlor	µg/L	24-hr composite	Quarterly	[14]
Heptachlor Epoxide	µg/L	24-hr composite	Quarterly	[14]
Hexachlorobenzene	µg/L	24-hr composite	Semiannually	[14]
Hexachlorobutadiene	µg/L	24-hr composite	Semiannually	[14]
Hexachloroethane	µg/L	24-hr composite	Semiannually	[14]
Isophorone	µg/L	24-hr composite	Semiannually	[14]
N-Nitrosodimethylamine	µg/L	24-hr composite	Semiannually	[14]
N-Nitrosodi-n-propylamine	µg/L	24-hr composite	Semiannually	[14]
N-Nitrosodiphenylamine	µg/L	24-hr composite	Semiannually	[14]

Parameter	Units	Sample Type[11]	Minimum Sampling Frequency[12]	Required Analytical Test Method and (Minimum Level, units), respectively
PAHs[18]	µg/L	24-hr composite	Semiannually	[14]
PCBs as Aroclors[18]	µg/L	24-hr composite	Semiannually	[14]
TCDD Equivalents[17,20]	pg/L	24-hr composite	Monthly	[14]
1,1,2,2-Tetrachloroethane	µg/L	Grab	Semiannually	[14]
Tetrachloroethylene	µg/L	Grab	Semiannually	[14]
Toxaphene	µg/L	24-hr composite	Semiannually	[14]
Trichloroethylene	µg/L	Grab	Semiannually	[14]
1,1,2-Trichloroethane	µg/L	Grab	Semiannually	[14]
2,4,6-Trichlorophenol	µg/L	24-hr composite	Semiannually	[14]
Vinyl chloride	µg/L	Grab	Semiannually	[14]

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing

1. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity

   The chronic IWC is the concentration of a pollutant or the parameter toxicity in the receiving water after mixing. The chronic toxicity IWC for Discharge Point 002 is 0.73 percent effluent.

2. Sample Volume and Holding Time

   The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. For the receiving water, sufficient sample volume shall also be collected during accelerated monitoring for subsequent Toxicity Identification Evaluation (TIE) studies, if necessary, at each sampling event. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

3. Chronic Marine Species and Test Methods

   If effluent samples are collected from outfalls discharging to receiving waters with salinity >1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples, at the in-stream waste concentration for the discharge, in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). Artificial sea salts or hypersaline brine shall be used to increase sample salinity if needed. In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

[20] USEPA Method 1613 shall be used to analyze TCDD equivalents. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1613.

a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0).

b. A static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, ~~and~~ or the sand dollar, *Dendraster excentricus* (both using Fertilization Test Method 1008.0), or a static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).

c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

4. Species Sensitivity Screening

Species sensitivity screening shall be conducted during this permit's first required sample collection. The Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As allowed under the test method for the *Atherinops affinis*, a second and third sample may be collected for use as test solution renewal water as the seven-day toxicity test progresses. If the result of all three species is "Pass", then the species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit cycle. If only one species fails, then that species shall be used for routine monitoring during the permit cycle. Likewise, if two or more species result in "Fail", then the species that exhibits the highest "Percent Effect" at the discharge IWC during the suite of species sensitivity screening shall be used for routine monitoring during the permit cycle, until such time as a rescreening is required.

Species sensitivity rescreening is required every 24 months if there has been discharge during dry weather conditions. If the discharge is intermittent and occurs only during wet weather, rescreening is not required. If rescreening is necessary, the Discharger shall rescreen with the marine vertebrate species, a marine invertebrate species, and the alga species previously referenced, and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger may proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

5. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.

a. The discharge is subject to determination of "Pass" or "Fail" from a chronic toxicity test using the Test of Significant Toxicity statistical t-test approach described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1, and Appendix B, Table B-1. The null hypothesis (H_o) for the TST statistical approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative

"Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100. This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations – in the case of a WET test, only two test concentrations (i.e. a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e. if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail")). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

b. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995) (see Table E-8, below), then the Discharger must re-sample and re-test within 14 days.

Table E-4. USEPA Test Methods and Test Acceptability Criteria

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
Topsmelt, *Atherinops affinis*, Larval Survival and Growth Test Method 1006.01. (Table 3 of Test Method)	80% or greater survival in controls; 0.85 mg average dry weight per surviving organism in control chambers (9 day old); LC50 with copper must be ≤ 205 µg/L, <25% MSD for survival and <50% MSD for growth. If the test starts with 9-day old larvae, the mean weight per larva must exceed 0.85 milligrams in the reference and brine controls; the mean weight of preserved larvae must exceed 0.72 milligrams. (required)
Purple Sea Urchin, *Strongylocentrotus purpuratus*, and the Sand Dollar, *Dendraster excentricus,* Fertilization Test Method 1008.0 (Table 7 of Test Method)	70% or greater egg fertilization in controls, must achieve a MSD of <25%, and appropriate sperm counts. (required)
Red Abalone, *Haliotis rufescens*, Larval Shell Development Test Method (Table 3 of Test Method)	80% or greater normal shell development in the controls; must have statistical significant effect at 56 µg/L zinc and achieve a MSD of <20%. (required)
Giant Kelp, *Macrocystis pyrifera*, Germination and Growth Test Method 1009.0 (Table 3 of Test Method)	70% or greater germination in controls, ≥ 10 µm germ-tube length in controls, No Observed Effect Concentration (NOEC) must be below 35 µg/L in the reference toxicant test, and must achieve a MSD of <20% for both germination and germ-tube length in the reference toxicant. (required)

c. Dilution water and control water, including brine controls, shall be 1-µm-filtered uncontaminated natural seawater, hypersaline brine prepared using uncontaminated natural seawater, or laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

d. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using the EC_{25}[21].

e. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

6. Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or the most current version. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the TRE Work Plan must contain the provisions in Attachment G. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum the work plan shall include:

a. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

b. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; and,

c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

7. Accelerated Monitoring Schedule for Maximum Daily Single Result: "Fail."

The Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.

Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within 5 calendar days of the receipt of the result. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. If the Discharger is unable to transport the collected samples off the island or if the contract lab is unable to secure organisms to conduct the toxicity test within 7 days, the Discharger may submit a written request to the Regional Water Board to delay initiation of accelerated monitoring up to an additional 7 days. The accelerated monitoring schedule shall consist of four toxicity tests (including the discharge IWC), conducted at approximately two-week intervals, over an eight-week period; in preparation for the TRE process and associated reporting,

[21] EC_{25} is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g. death, immobilization, or serious incapacitation) in 25 percent of the test organisms.

these results shall also be reported using the EC_{25}. If each of the accelerated toxicity tests results in "Pass," the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

8. Toxicity Reduction Evaluation (TRE) Process

During the TRE Process, monthly effluent monitoring shall resume and TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

a. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) and, within 15 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the generic Initial Investigation TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:

i. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.

ii. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.

iii. A schedule for these actions, progress reports, and the final report.

b. **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

c. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

d. The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.

e. The Regional Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

9. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter called Report Preparation, and shall include:

a. Test results shall be reported in percent survival for acute toxicity tests.

b. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-7.

c. Summary water quality measurements for each toxicity test (e.g. pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

d. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1.

e. TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.

f. Statistical program (e.g. TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.

g. Graphical plots clearly showing the laboratory's performance of the reference toxicant for the previous 20 tests and the laboratory's performance of the control mean, control standard deviation, and control coefficient of variation for the previous 12-month period.

h. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon written request of the Regional Water Board Chief Deputy Executive Officer or Executive Officer.

B. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and no other toxicants before the Executive Officer would allow for control of pH in the test.

a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

C. Chlorine Removal

Except with prior approval from the Executive Officer of the Regional Water Board, chlorine shall not be removed from bioassay samples.

VI. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

VII. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

VIII. RECEIVING WATER MONITORING REQUIREMENTS

All receiving water stations shall be located by state-of-the-art navigational methods (e.g. DGPS); other means (e.g. visual triangulation, fathometer readings) may be used to improve the accuracy of locating stations.

A. Offshore Water Quality Monitoring Location

This monitoring is designed to determine if Ocean Plan, ASBS, and Basin Plan objectives for physical and chemical parameters and bacteria are being met. Water quality data collected provide the information necessary to demonstrate compliance with the water quality standards.

1. The Discharger shall conduct offshore water quality monitoring at RSW-001, RSW-002, RSW-003, RSW-004, and RSW-005 annually using a CTD profiler as follows:

Table E-5. Offshore Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved oxygen	mg/L	continuous profile[22]	Annually	[23]
Temperature	°C	continuous profile[22]	Annually	[23]
Salinity	ppt	continuous profile[22]	Annually	[23]
Transmissivity	% transmittance	continuous profile[22]	Annually	[23]
Chlorophyll a	µg/L	continuous profile[22]	Annually	[23]
pH	pH units	continuous profile[22]	Annually	[23]

[22] Depth profile measurements shall be obtained using multiple sensors to measure parameters through the entire water column (from the surface to as close to the bottom as practicable).

[23] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Residual Chlorine	mg/L	Grabs at 0.5 meters below surface at RSW-002 only	Annually	[23]
Visual observations[24]	---	---	Annually	---

Water quality methods and protocols shall follow those described in the most current edition of the *Field Operations Manual for Marine Water Column, Benthic, and Trawl Monitoring in Southern California*. Data shall be analyzed to approximate the typical wastewater plume movement and data under different seasonal and weather conditions.

2. To determine compliance with ASBS requirements, the Discharger shall monitor a single down-current location, at the first trapping normal depth, to demonstrate that natural water quality is not altered in the ASBS outside the exclusion zone (within 1000 feet of the initial point of discharge) when compared to the unaffected reference site. Only one of the RSW locations (RSW-001, RSW-002, RSW-003, RSW-004, or RSW-005) shall be sampled to determine compliance, depending on the direction of the current at the time of sample collection. The selected station must be down-current of the discharge point. Regional monitoring data may be reported for the reference site except for dissolved oxygen and pH, which shall be sampled separately at a single up-current location from the RSW. Monitoring results for total residual chlorine and visual observations at the selected down-current RSW location shall be reported in the quarterly self-monitoring report. The Discharger shall conduct the following offshore water quality monitoring twice per permit cycle at a single down-current RSW location and a single up-current reference location concurrent with the effluent monitoring:

[24] Observations of wind speed and direction, weather, current direction, and tidal condition (high/low) shall be recorded at the time receiving water samples are collected. Receiving water observations of any discoloration, turbidity, odor, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks, jetties, or beach structures, shall be made and recorded at stations. The character and extent of such matter shall be described. The dates, times, and depths of sampling and these observations shall also be reported. Recreational use at time of sampling, within a 100-meter radius of each sample location, shall also be recorded and submitted with results. Recreational uses include, but are not limited to, swimming, wading, water-skiing, diving, surfing, and fishing.

Table E-6. ASBS Compliance Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Arsenic	µg/L	Grab	2x/permit cycle	[25]
Cadmium	µg/L	Grab	2x/permit cycle	[25]
Chromium (VI)	µg/L	Grab	2x/permit cycle	[25]
Copper	µg/L	Grab	2x/permit cycle	[25]
Lead	µg/L	Grab	2x/permit cycle	[25]
Mercury[26]	µg/L	Grab	2x/permit cycle	[25]
Nickel	µg/L	Grab	2x/permit cycle	[25]
Selenium	µg/L	Grab	2x/permit cycle	[25]
Silver	µg/L	Grab	2x/permit cycle	[25]
Zinc	µg/L	Grab	2x/permit cycle	[25]
Cyanide	µg/L	Grab	2x/permit cycle	[25]
Total Residual Chlorine	mg/L	Grab	2x/permit cycle	[25]
Ammonia Nitrogen	mg/L	Grab	2x/permit cycle	[25]
Toxicity, Chronic	Pass or Fail (TST)	Grab	2x/permit cycle	[25]
Phenolic compounds (non-chlorinated)[27]	µg/L	Grab	2x/permit cycle	[25]
Phenolic compounds (chlorinated)[27]	µg/L	Grab	2x/permit cycle	[25]
Endosulfan[27]	µg/L	Grab	2x/permit cycle	[25]
Endrin	µg/L	Grab	2x/permit cycle	[25]
HCH[27]	µg/L	Grab	2x/permit cycle	[25]
Radioactivity (including gross alpha, gross beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)[28]	pCi/L	Grab	2x/permit cycle	[25]
Acrolein	µg/L	Grab	2x/permit cycle	[25]

[25] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

[26] USEPA Method 1631E, with a quantitation level of 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1631E.

[27] See Attachment A for definition of terms.

[28] Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha and gross beta results for the same sample exceed 15 pCi/L or 50 pCi/L, respectively. If radium-226 & 228 exceeds the stipulated criteria, then analyze for tritium, strontium-90, and uranium.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Antimony	µg/L	Grab	2x/permit cycle	25
Bis(2-chloroethoxy) methane	µg/L	Grab	2x/permit cycle	25
Bis(2-chloroisopropyl) ether	µg/L	Grab	2x/permit cycle	25
Chlorobenzene	µg/L	Grab	2x/permit cycle	25
Chromium (III)	µg/L	Grab	2x/permit cycle	25
Di-n-butyl phthalate	µg/L	Grab	2x/permit cycle	25
Dichlorobenzenes[27]	µg/L	Grab	2x/permit cycle	25
Diethyl Phthalate	µg/L	Grab	2x/permit cycle	25
Dimethyl Phthalate	µg/L	Grab	2x/permit cycle	25
4,6-dinitro-2-methylphenol	µg/L	Grab	2x/permit cycle	25
2,4-dinitrophenol	µg/L	Grab	2x/permit cycle	25
Ethylbenzene	µg/L	Grab	2x/permit cycle	25
Fluoranthene	µg/L	Grab	2x/permit cycle	25
Hexachlorocyclo-pentadiene	µg/L	Grab	2x/permit cycle	25
Nitrobenzene	µg/L	Grab	2x/permit cycle	25
Thallium	µg/L	Grab	2x/permit cycle	25
Toluene	µg/L	Grab	2x/permit cycle	25
Tributyltin	ng/L	Grab	2x/permit cycle	25
1,1,1-Trichloroethane	µg/L	Grab	2x/permit cycle	25
Acrylonitrile	µg/L	Grab	2x/permit cycle	25
Aldrin	µg/L	Grab	2x/permit cycle	25
Benzene	µg/L	Grab	2x/permit cycle	25
Benzidine	µg/L	Grab	2x/permit cycle	25
Beryllium	µg/L	Grab	2x/permit cycle	25
Bis(2-chloroethyl) ether	µg/L	Grab	2x/permit cycle	25
Bis(2-ethylhexyl) phthalate	µg/L	Grab	2x/permit cycle	25
Carbon Tetrachloride	µg/L	Grab	2x/permit cycle	25
Chlordane[27]	µg/L	Grab	2x/permit cycle	25
Chlorodibromomethane	µg/L	Grab	2x/permit cycle	25
Chloroform	µg/L	Grab	2x/permit cycle	25
DDT[27]	µg/L	Grab	2x/permit cycle	25
1,4-dichlorobenzene	µg/L	Grab	2x/permit cycle	25
3,3'-dichlorobenzidine	µg/L	Grab	2x/permit cycle	25
1,2-dichloroethane	µg/L	Grab	2x/permit cycle	25
1,1-dichloroethylene	µg/L	Grab	2x/permit cycle	25
Dichlorobromomethane	µg/L	Grab	2x/permit cycle	25
Dichloromethane	µg/L	Grab	2x/permit cycle	25
1,3-Dichloropropene	µg/L	Grab	2x/permit cycle	25

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dieldrin	µg/L	Grab	2x/permit cycle	25
2,4-dinitrotoluene	µg/L	Grab	2x/permit cycle	25
1,2-diphenylhydrazine	µg/L	Grab	2x/permit cycle	25
Halomethanes[27]	µg/L	Grab	2x/permit cycle	25
Heptachlor	µg/L	Grab	2x/permit cycle	25
Heptachlor Epoxide	µg/L	Grab	2x/permit cycle	25
Hexachlorobenzene	µg/L	Grab	2x/permit cycle	25
Hexachlorobutadiene	µg/L	Grab	2x/permit cycle	25
Hexachloroethane	µg/L	Grab	2x/permit cycle	25
Isophorone	µg/L	Grab	2x/permit cycle	25
N-Nitrosodimethylamine	µg/L	Grab	2x/permit cycle	25
N-Nitrosodi-n-propylamine	µg/L	Grab	2x/permit cycle	25
N-Nitrosodiphenylamine	µg/L	Grab	2x/permit cycle	25
PAHs[27]	µg/L	Grab	2x/permit cycle	25
PCBs as Aroclors[27]	µg/L	Grab	2x/permit cycle	25
TCDD Equivalents[27,29]	pg/L	Grab	2x/permit cycle	25
1,1,2,2-Tetrachloroethane	µg/L	Grab	2x/permit cycle	25
Tetrachloroethylene	µg/L	Grab	2x/permit cycle	25
Toxaphene	µg/L	Grab	2x/permit cycle	25
Trichloroethylene	µg/L	Grab	2x/permit cycle	25
1,1,2-Trichloroethane	µg/L	Grab	2x/permit cycle	25
2,4,6-Trichlorophenol	µg/L	Grab	2x/permit cycle	25
Vinyl chloride	µg/L	Grab	2x/permit cycle	25
Oil and Grease	mg/L	Grab	2x/permit cycle	25
Total Suspended Solids	mg/L	Grab	2x/permit cycle	25
Settleable Solids	mL/L	Grab	2x/permit cycle	25
Turbidity	NTU	Grab	2x/permit cycle	25
pH	Units	Grab	2x/permit cycle	25
Dissolved oxygen	mg/L	Grab	2x/permit cycle	25
Nitrate	°C	Grab	2x/permit cycle	25
Phosphate	ppt	Grab	2x/permit cycle	25

3. The Discharger shall monitor bacteria and ammonia at five offshore receiving water monitoring locations including RSW-001, RSW-002, RSW-003, RSW-004, and RSW-005, and bacteria at two shoreline bacteria monitoring locations including SBM-001 and SBM-002 (see Figure E-1 and Table E-1) as follows:

[29] USEPA Method 1613 shall be used to analyze TCDD equivalents. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR 136, the Discharger may use that method in lieu of USEPA Method 1613.

Table E-7. Additional Offshore and Shoreline Receiving Water Monitoring Requirements

Parameter	Units	Sample Type[30]	Minimum Sampling Frequency	Required Analytical Test Method
Total Coliform	MPN or CFU/100 mL	Grab, surface, and mid-depth and near bottom[31]	Monthly	[32]
Fecal Coliform	MPN or CFU/100 mL	Grab, surface, and mid-depth and near bottom[31]	Monthly	[32]
Enterococcus	MPN or CFU/100 mL	Grab, surface, and mid-depth and near bottom[31]	Monthly	[32]
Ammonia Nitrogen	mg/L	Grab, surface, and mid-depth and near bottom[31]	~~Monthly~~Annually	[32]

B. Benthic Infauna Sediment Chemistry Monitoring Requirements

1. Local Benthic Trends Survey

This survey is designed to determine if benthic conditions under the influence of the discharge are changing over time. The data collected are used for regular assessment of trends in sediment contamination and for drawing inferences concerning the relationship between effluent-derived alteration of the benthic habitat and patterns in infaunal community structure. This data is also used to determine the status of marine aquatic life to satisfy ASBS requirements.

The Discharger shall monitor the eight subtidal and one intertidal benthic monitoring stations at SM-001, SM-002, SM-003, SM-004, SM-005, SM-006, SM-007, SM-008, and IBM-001 (see Figure E-1 and Table 1) once per permit cycle as follows:

Table E-8. Benthic Infauna and Sediment Chemistry Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Benthic Infauna Community[33]	--	0.1 square meter Van Veen Grab	Once per permit cycle	--
Total Organic Carbon	mg/kg	0.1 square meter Van Veen Grab (upper 2 centimeters)	Once per permit cycle	[32]

[30] Discrete sampling for ammonia nitrogen, fecal coliform, total coliform, and *Enterococcus* shall be performed below the surface within 1 meter (3.1 feet) and at 15 meters (49.2 feet), 30 meters (98.4 feet), and 45 meters (147.6 feet), or as deep as practicable for those stations located at depths less than 45 meters.

[31] Bottom sampling shall be conducted 2 meters (6.6 feet) above the seabed.

[32] Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

[33] Community analysis of benthic infauna shall include the number of species, the number of individuals per species, the total numerical abundance per station, the benthic response index (BRI) and biological indices, plus the analysis shall utilize appropriate regression analyses, parametric and nonparametric statistics, and multivariate techniques or other appropriate analytical techniques.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Organic Nitrogen	mg/kg	0.1 square meter Van Veen Grab (upper 2 centimeters)	Once per permit cycle	32
Grain Size	Phi size	0.1 square meter Van Veen Grab (upper 2 centimeters)	Once per permit cycle	32

Intertidal survey methods shall be those used by the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) for their biodiversity surveys. A single intertidal site at IBM-001 (see Figure E-1 and Table E-1) shall be surveyed as close to the discharge as possible and compared to a reference location at San Clemente Island approved through the regional monitoring program.

Subtidal surveys and sampling at SM-001 through SM-008 (See Figure E-1 and Table E-1) may include rocky reef and/or soft-bottom habitats as appropriate to the actual benthic conditions at the edge of the exclusion zone (within 1,000 feet of the initial point of discharge). The far-field samples at SM-006 through SM-008 shall be collected from a comparable habitat to the near-field samples at SM-001 through SM-005. Subtidal soft-bottom sampling shall conform with the methods used in the SCCWRP Southern California Bight regional surveys. Subtidal rocky reef surveys shall be non-destructive and conform to the methods used in the SCCWRP Southern California Bight regional surveys.

Benthic infauna monitoring shall be conducted once per permit cycle during the month of July. One sample shall be collected at each station for benthic infaunal community analysis. The entire contents of each sample shall be passed through a 1.0-millimeter screen to retain the benthic organisms. Benthic sampling methods and protocols shall follow those described in the most current edition of the *Field Operations Manual for Marine Water Column, Benthic, and Trawl Monitoring in Southern California*. All organisms contained within the sample shall be identified to the lowest possible taxon and counted. The resulting data shall be used to describe community structure at each station.

2. Regional Benthic Survey

This regional survey is designed to determine 1) the extent, distribution, magnitude and trend of ecological change in soft-bottom benthic habitats within the Southern California Bight and 2) the relationship between biological response and contaminant exposure. The data collected will be used to assess the condition of the sea-floor environment and the health of biological communities in the Bight.

Regional surveys of benthic conditions occur every five years within the Southern California Bight and the 2018 regional monitoring effort is currently underway. The final survey design is determined cooperatively by participants represented on the Regional Steering Committee. The Discharger is encouraged to support the benthic surveys conducted as part of the Bight regional monitoring effort by participating in or performing the following activities:

Participation on the Steering Committee
Participation on relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, Benthos, and Chemistry)
Field sampling at sea
Infaunal sample analysis
Sediment chemistry analysis

Data management

IX. OTHER MONITORING REQUIREMENTS

A. Special Study – Data for Plume Model Mixing Predictions

State Water Board Ocean Unit staff applied data from the California Cooperative Oceanic Fisheries Investigations nearshore stations surveyed in the summers 2010 and 2011 to evaluate the minimum initial dilution for Discharge Point 002. Based on the results, State Water Board staff agreed with the original United States Navy (Navy) report suggesting 136 as the value for minimum initial dilution as defined in the 2009 California Ocean Plan for use in the Order.

However, neither the ambient data used by staff to model near-field mixing nor the ambient data used by the Navy's consultant represent actual site receiving water conditions. As a result, the Navy collected salinity and temperature data throughout the water column near the outfall in areas unaffected by the plume for two summers during the previous permit cycle. The Navy shall use the receiving water data collected and any additional data shall be collected as needed to evaluate the initial dilution of the discharge plume and to determine the appropriateness of the 136:1 dilution ratio. The Navy shall submit a dilution study work plan to the Regional Water Board for approval by the Executive Officer within 180 days of the effective date of this permit describing the timeline and procedures that will be used in the study. At a minimum, the work plan shall include the dilution model being used, a description of the sensitivity analysis, ambient conditions, and all model inputs.

B. Outfall and Diffuser Inspection

This survey is designed to ensure that the outfall structures are in serviceable condition and they can continue to be operated safely. The data collected will be used for a periodic assessment of the integrity of the outfall pipes and ballasting system.

The entire ocean outfall for Discharge Point 002 shall be externally inspected at a minimum of twice per permit cycle during the month of July or August of 2020 and 2022. Inspections shall include general observations and photographic/video graphic records of the exterior outfall pipes and the adjacent ocean bottom. The outfall shall be examined for plugs, leaks, and flow distribution. A visual inspection at and near the outfall system shall be conducted to determine the thickness of any "cloud" of unsettled solids, bottom flora and fauna, and any other biological and physical conditions. The pipes shall be visually inspected by a diver, manned submarine, or remotely operated vehicle. A summary report of the inspection findings shall be provided. This written report, augmented with video graphic and/or photographic images, will provide a description of the observed condition of the discharge pipes from shallow water to their respective termini. The final report shall be submitted to the Regional Water Board with the annual summary report on April 15.

C. Biosolids and Sludge Management

1. The Discharger shall comply with all Clean Water Act and regulatory requirements of 40 CFR § 257, 258, 501, and 503, including all applicable monitoring, recordkeeping, and reporting requirements.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.

3. Each monitoring report shall contain a separate section titled "Summary of Non-compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements as well as all excursions of effluent limitations.
4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction or maintenance activity, or modification to the Federally-Owned Treatment Works (FOTW) that could potentially affect compliance with applicable requirements.
5. The date and time of sampling (as appropriate) shall be reported with the analytical values determined.
6. The laboratory conducting analyses shall be certified by ELAP, in accordance with CWC section 13176, or approved by the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program, and USEPA for that particular parameter and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new/renewal certification is obtained from ELAP and must be submitted with the annual summary report. Each monitoring report must affirm in writing that: "All analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health, or approved by the Regional Water Board Executive Officer (in consultation with the State Water Board's Quality Assurance Program) and USEPA, and in accordance with current USEPA guideline procedures or as specified in this MRP."
7. The actual depths and coordinates of the receiving water stations sampled shall also be reported.
8. Non-detect levels reported for SCI WWTP's effluent are generally higher than effluent limitations or water quality objectives for DDT, chlordane, PCBs and PAHs. Therefore, the Discharger shall strive for lower analytical detection levels than those specified in Appendix II of the 2015 Ocean Plan.
9. Upon request by the Discharger, the Regional Water Board, in consultation with the State Water Board's Quality Assurance Program and/or USEPA, may establish an ML that is not contained in Appendix II of the 2015 Ocean Plan, to be included in the Discharger's NPDES permit, in any of the following situations:
    a. When the pollutant under consideration is not included in Appendix II;
    b. When the Discharger agrees to use a test method that is more sensitive than those specified in 40 CFR § 136 (most recent revision);
    c. When the Discharger agrees to use an ML lower than those listed in Appendix II;
    d. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix II and proposes an appropriate ML for their matrix; or
    e. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, Regional Water Board, State Water Board and USEPA shall agree on a lowest quantifiable limit, and that limit will substitute for the ML for reporting and compliance determination purposes.